WHAT IS CLAIMED IS:

1. An electromagnetic waveform comprising a computer program, the computer program for producing a decomposition of a constraint during functional verification of a representation of an electronic design of an integrated circuit (IC), the computer program comprising the following steps when executed by a data processing system:

producing an H term by quantification of a first variable from the constraint;

producing a G term by quantification of a second variable, different than the first variable, from the constraint;

returning the H term and the G term as a decomposition of the constraint if a result of a Boolean connective operator, applied to the H term and the G term, is functionally equivalent to the constraint.

2. A method for producing a decomposition of a constraint, comprising:

producing an H term by quantification of a first variable from the constraint;

producing a G term by quantification of a second variable, different than the first variable, from the constraint;

returning the H term and the G term as a decomposition of the constraint if a result of a Boolean connective operator, applied to the H term and the G term, is functionally equivalent to the constraint.

3. A method for producing a decomposition of a constraint, comprising:

producing an H term by quantification of a first variable from the constraint;

producing a G term by successively quantifying an additional variable from the constraint, different than the first variable, each time a result of a Boolean connective operator, applied to the H term and the successively quantified G term, is functionally equivalent to the constraint.

4. The method of claim 3, further comprising:

recursively repeating the steps of producing an H term and producing a G term, with the H term taking a place of the constraint in the recursion; and

ending the recursion when the H term produced is a function of no variables.

5. The method of claim 4, further comprising:

returning, as a decomposition of the constraint, a set containing each G term produced prior to a subsequent recursion.

6. The method of claim 5, further comprising:

merging overlapping factors, in the set containing each G term produced prior to a subsequent recursion, prior to returning the set as a decomposition of the constraint.

7. The method of claim 2, wherein the decomposition is an AND decomposition, the quantification is existential quantification and the Boolean connective operator is an AND operator.

8. The method of claim 2, wherein the decomposition is an OR decomposition, the quantification is universal quantification and the Boolean connective operator is an OR operator.

9. The method of claim 3, wherein the decomposition is an AND decomposition, the quantification is existential quantification and the Boolean connective operator is an AND operator.

10. The method of claim 3, wherein the decomposition is an OR decomposition, the quantification is universal quantification and the Boolean connective operator is an OR operator.

11. A computer program product comprising:

a computer usable medium having computer readable code embodied therein for producing a decomposition of a constraint, the computer program product including:

computer readable program code devices configured to cause a computer to effect producing an H term by quantification of a first variable from the constraint;

computer readable program code devices configured to cause a computer to effect producing a G term by quantification of a second variable, different than the first variable, from the constraint;

computer readable program code devices configured to cause a computer to effect returning the H term and the G term as a decomposition of the constraint if a result of a Boolean connective operator, applied to the H term and the G term, is functionally equivalent to the constraint.

12. An electromagnetic waveform comprising a computer program, the computer program for determining a decomposition of a constraint, the computer program comprising the following steps when executed by a data processing system:

producing an H term by quantification of a first variable from the constraint;

producing a G term by quantification of a second variable, different than the first variable, from the constraint;

returning the H term and the G term as a decomposition of the constraint if a result of a Boolean connective operator, applied to the H term and the G term, is functionally equivalent to the constraint.

13. A computer program product comprising:

a computer usable medium having computer readable code embodied therein for producing a decomposition of a constraint, the computer program product including:

computer readable program code devices configured to cause a computer to effect producing an H term by quantification of a first variable from the constraint;

computer readable program code devices configured to cause a computer to effect producing a G term by successively quantifying an additional variable from the constraint, different than the first variable, each time a result of a Boolean connective operator, applied to the H term and the successively quantified G term, is functionally equivalent to the constraint.

14. An electromagnetic waveform comprising a computer program, the computer program for determining a decomposition of a constraint, the computer program comprising the following steps when executed by a data processing system:

producing an H term by quantification of a first variable from the constraint;

producing a G term by successively quantifying an additional variable from the constraint, different than the first variable, each time a result of a Boolean connective operator, applied to the H term and the successively quantified G term, is functionally equivalent to the constraint.